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17. (previously presented) A method for sending a notice of failure detection according to claim 16, wherein, in said step of transmitting said link-up signal, said link-up signal is transmitted during a period other than a data communication period.

18. (previously presented) A method for sending a notice of failure detection according to claim 16, wherein, in said step of stopping transmitting said link-up signal, transmission of said link-up signal and data is stopped.

REMARKS

Initially, in the Office Action dated October 21, 2003, the Examiner rejects claims 13-18 under 35 U.S.C. §102(b) as being anticipated by European Patent Application No. 0674262 (Carlson et al.). Claims 2-7 and 10-12 are allowed.

By the present response, Applicants have amended claims 13 and 16 to further clarify the invention. Claims 2-7 and 10-18 remain pending in the present application.

Notice of References Cited

The October 21, 2003 Final Office Action did not attach a Notice of References Cited. Applicants respectfully request that the Examiner provided an initialed Notice of References Cited with the next Patent Office Communication.

Allowable Subject Matter

Applicants thank the Examiner for the allowance of claims 2-7 and 10-12.

35 U.S.C. §102 Rejections

Claims 13-18 have been rejected under 35 U.S.C. §102(b) as being anticipated by Carlson et al. Applicants respectfully traverse these rejections.

Carlson et al. discloses reducing the overhead required in conventional fault tolerant processing by redundant processors. Commands are received and queued by both active and standby units but are processed only by the active unit. Short messages, each including a common identifier, are transmitted from the active unit to the standby unit. Periodic handshaking signals are exchanged between the two units. In the event the active unit fails, the standby unit is automatically brought on-line to process the unprocessed commands and transmit responses to the command source. The failed unit becomes the standby unit when it is restored.

Regarding claims 13 and 16, Applicants submit that Carlson et al. does not disclose or suggest the limitations in the combination of each of these claims of, inter alia, transmitting periodically a signal different from data to a transmission side transfer path, monitoring whether or not a signal different from data is received from a reception side transfer path, judging that a failure occurs in the other inter-network apparatus or on the reception side transfer path when detecting that the signal to be monitored is not received from the reception side transfer path, stopping transmitting the signal to be transmitted periodically to the transmission side transfer path where the transmission side transfer path and the reception side transfer path are independent of each other. The Applicants' invention, as reflected in claims 13-18, discloses that an inter-network apparatus is connected to another inter-network

apparatus via a transmission side transfer path and a reception side transfer path with both the paths being independent of each other. Thus, the inter-network apparatus transmits a signal to another inter-network apparatus via the transmission side transfer path, and receives a signal from the another inter-network apparatus via the reception side transfer path. With such an arrangement that an inter-network apparatus is connected to another inter-network apparatus via discrete transfer paths on the transmission side and the reception side, the inter-network apparatus transmits a signal periodically or continuously to the another inter-network apparatus via the transmission side transfer path.

In contrast with the cited references, according to the present invention, the signal transmitted from the inter-network apparatus is not an acknowledge signal of reception of a signal sent from said another inter-network apparatus. Signals are transmitted independently between the inter-network apparatuses. These limitations of "transmitting periodically a signal different from data to said transmission side transfer path" or "monitoring whether or not a signal different from data is received from said reception side transfer path, said signal to be monitored being periodically received from said other inter-network apparatus" are not disclosed or suggested by the cited references. According to the present invention, both the apparatuses transmit to each other signals of a same kind and not acknowledge signals related to signal reception. Then, one apparatus monitors whether or not a signal transmitted from the other apparatus is received via the reception side transfer path.

When detecting that the signal is not received, the one apparatus not only determines that a failure occurs in the other apparatus or the reception side transfer path, but also affirmatively stops the signal which has been transmitted periodically or continuously to said other apparatus via the transmission side transfer path. Whereby, the other apparatus can also detect that the signal transmitted from the one apparatus is not received. As a result, the one apparatus can notify the other apparatus of an occurrence of the failure.

In contrast, Carlson et al. discloses at col. 5, lines 40-47, a system wherein one of a command processor unit A (12) and a command processor unit B (14) sends a short signal to the other unit, and that the other unit returns an acknowledgement. There is also disclosure that a failure of one unit to receive an appropriate signal provides an indication that the other unit has suffered a problem. Further, the Examiner asserts that Carlson et al. discloses stopping transmitting said signal to be transmitted periodically to said transmission side transfer path, as recited in the claims of the present invention, by Carlson et al.'s disclosure of returning an acknowledgement if signal is received, which means the acknowledgement or signal is not sent if the signal is not received. However, this is not stopping transmitting the signal to be transmitted periodically to the transmission side transfer path where the transmission side transfer path and the reception side transfer path are independent of each other. Carlson et al. does not disclose or suggest the unit A (12) and unit B (14) using a transmission path and a reception path independently of each. The disclosure in Carlson et al. suggesting a case

where an acknowledgement is not returned is not a unit positively stopping returning of an acknowledgement in response to detection of a failure to make the other unit detect the failure, as recited in the claims of the present application. Further, there is no description in Carlson et al. that both the units transmit signals of a same kind other than an acknowledge to each other.

Regarding claims 14, 15, 17 and 18, Applicants submit that these claims are dependent on one of independent claims 13 and 16 and, therefore, are patentable at least for the same reasons noted regarding these independent claims. For example, Carlson et al. does not disclose or suggest where when transmitting a signal different from data, a signal representing that an own inter-network apparatus operates normally is transmitted.

Accordingly, Applicants submit that Carlson et al. does not disclose or suggest the limitations in the combination of each of claims 13-18 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

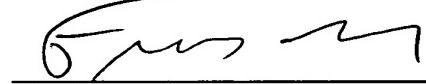
In view of the foregoing amendments and remarks, Applicants submit that claims 2-7 and 10-18 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

U.S. Application No. 09/654,089

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 500.39008X00).

Respectfully submitted,

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